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ABSTRACT

Mock juries of six females each listened to a tape-recording of facts in a courtroom trial. Twelve juries heard guilt-appearing facts, and twelve heard innocent-appearing facts. In half the juries hearing each type of trial, jurors heard the facts in the same (Homogeneous) order; in the remaining juries, each of the six jurors heard the facts in a different (Heterogeneous) order. Jurors individually rated defendant's guiltiness, then discussed the case as a jury, and again individually rated guiltiness. Since pilot work had shown a recency effect for memory of the facts, it was reasoned that a greater variety of information would be shared during discussion in heterogeneous- than in homogeneous-order juries. It was predicted, from information integration theory, that greater variety of shared information would lead to greater polarization effects of discussion. As predicted, heterogeneous presentation, compared to homogeneous, led to a greater increase in guiltiness ratings following discussion of the guilty-appearing trial, and a greater decrease in guiltiness ratings for the innocent-appearing trial. Informational influence on discussion-induced judgement shifts is enhanced where discussants possess different sets of information for sharing. Differential memory may account for variety in shared information where discussants were all exposed to the same information. (Author)

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Juror Judgments and Discussion: Effect of Presentation and Memory Factors on Polarization[1]

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Abstract

Mock juries of six females each listened to a tape-recording of facts in a courtroom trial. Twelve juries heard guilt-appearing facts, and twelve heard innocent-appearing facts. In half the juries hearing each type of trial, jurors heard the facts in the same (Homogeneous) order; in the remaining juries, each of the six jurors heard the facts in a different (Heterogeneous) order. Jurors individually rated defendant's guiltiness, then discussed the case as a jury, and again individually rated guiltiness. Since pilot work had shown a recency effect for memory of the facts, it was reasoned that a greater variety of information would be shared during discussion in heterogeneous- than in homogeneous-order juries. It was predicted, from information integration theory, that greater variety of shared information would lead to greater polarization effects of discussion. As predicted, heterogeneous presentation, compared to homogeneous, led to a greater increase in guiltiness ratings following discussion of the guilty-appearing trial, and a greater decrease in guiltiness ratings for the innocent-appearing trial. Informational influence on discussion-induced judgment shifts is enhanced where discussants possess different sets of information for sharing. Differential memory may account for variety in shared information where discussants were all exposed to the same information.

Juror Judgments and Discussion: Effect of Presentation and Memory Factors on Polarization

Groups often exert influence on individual members through the discussion of decision alternatives. Although the results of discussion are well documented (e.g., the polarization of individual judgments from pre- to postdiscussion), the influence mechanism is open to argument. Consider the polarizing effect of group discussion. Where information about the judgment has some predominant, nonneutral value, the effect of discussion is to polarize prediscussion judgments. For example, if evidence given to a mock jury is predominantly guilt-appearing, jurors will vote guilty with a greater degree of certainty after, than before discussion (Myers & Kaplan, 1976). The opposite effect holds true for cases with an appearance of innocence. Two general interpretations have arisen for the polarization phenomenon. One, interpersonal comparisons (e.g., Pruitt, 1971) invokes conformity processes; individuals conform to the judgments and norms of others, presumably to minimize conflict and inconsistency. The other, informational influences, focuses less on others' judgments than on the informational content of shared arguments. The latter interpretation has received impressive support (see, e.g., Myers & Lamm, 1976), and recent research has attempted to specify the mechanism by which shared information modifies judgments. This paper tests an implication of the informational influence interpretation and its attendant mechanism.

Both attitude change (Anderson & Graesser, 1976) and impression formation (Kaplan, Note 1) models suggest a mechanism of information integration. Prediscussion judgments are a composite of the value of salient information and an initial impression. The latter is the impression or bias (e.g., regarding

guilt or innocence) existing prior to presentation of information, and in many cases can be assumed to be neutral or near neutral. Thus, when information has some nonneutral value (as in the case of a guilty- or innocent-appearing trial, or a "risky" choice dilemma), the prediscussion judgment will not be as extreme as warranted by the information. Discussion serves to introduce (Anderson & Graesser, 1976) or reintroduce (Ebbesen & Bowers, 1974; Kaplan, 1975) nonneutral information which is integrated with earlier information, thereby drawing the judgment farther away from the initial impression. One implication of this is that the less redundant the shared (nonneutral) information, the greater the discussion-induced polarization. This implication has been confirmed (Kaplan, Note 1; Vinokur & Burnstein, 1974).

However, it is not always clear that group members convene with different and nonredundant sets of equally valued information. In a courtroom trial, for example, all jurors are privy to the same evidence, and yet discussion may enhance prior judgments. It may be that individuals base their prediscussion judgments on somewhat different, but evaluatively equivalent, sets of information. Differences in information sets may be due to memory or attentional factors. During deliberation, these different sets of information are pooled, and each individual is reminded of information not previously integrated into his or her judgment. Increasing the information effectively integrated into judgment leads to a "set-size" effect (Anderson, 1974), or polarization due to an increase in nonneutral elements relative to a neutral initial impression. It follows, then, that any presentation factors which increase the likelihood that different sets of facts will be salient and memorable for different jurors should increase the variety of the information pool being shared during discussion, and consequently should increase polarization. This paper reports an experiment which varied the order of presentation of facts as a means of

affecting the memorable sets of information for each juror.

Method

Pilot Study

One hundred and twenty-one females enrolled in an introductory psychology course served as subjects in a pilot study prior to the actual experiment.

Each subject was asked for a dichotomous verdict (guilty or innocent) and a rating of degree of guilt (0-20 point scale, with 0 indicating certain innocence and 20 indicating certain guilt) for the defendant in a court trial, after having listened to a tape-recording of the evidence. Sixty subjects listened to a guilt-appearing trial, and 61 listened to an innocent-appearing trial. Each case was composed of 30 facts taken from Kaplan (1975), as modified from a set of facts originally used by Walker, Thibaut, & Andreoli (1972). For each trial, the 30 facts were randomly placed into six blocks of five facts each. These six blocks were then randomly ordered into an original sequence; and five more sequences were generated according to a Latin square, so that, across the six sequences, a given block appeared first once, second once, third once, and so on. These six sequences of facts were tape recorded, with a two-second interval between each fact. An approximately equal number of subjects listened to the different sequences.

The verdicts and guilt ratings for the six guilt-appearing sequences showed them to be equivalent in guiltiness ($F < 1$ for the ratings); the same was true for the six innocent-appearing sequences ($F < 1$ for the ratings). Collapsing across the six sequences, 44 of the 60 subjects in the guilt-appearing case judged the defendant guilty, while only 4 of the 61 subjects in the innocent-appearing case did so, $\chi^2(1) = 56.36$, $p < .001$. The mean guilt rating for the guilt-appearing trial likewise differed from the mean guilt rating for the innocent-appearing trial ($\bar{X}$'s = 13.3 and 6.4, respectively).

In addition to giving verdicts and guilt ratings, subjects were asked to list (a) the facts which most influenced them in their verdicts and ratings (b) all other facts they could remember. For each trial and each sequence of blocks, a count was made of the facts recalled from the first 5-fact block, the second 5-fact block, and so on. Table 1 shows these counts, collapsed across the two trials and six sequences. For both sets of facts, important

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Insert Table 1 about here

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and unimportant, a recency effect was apparent, whereby recall was best for the facts that appeared in the last two blocks.

The Experiment

Subjects were 144 females enrolled in an introductory psychology course. They took part in the experiment in 6-person juries. All six subjects listened to a tape recording of one of the trials used in the pilot study; they listened via headphones, with two of them together in a room. Half of all the juries heard the guilt-appearing trial, and half heard the innocent-appearing trial. For half of the juries hearing each trial (Homogeneous condition), the six subjects heard the facts in the same order, the order being one of the six sequences used in the pilot study (i.e., all of the subjects within a jury heard the same sequence, but each of the six juries listening to each trial heard a different sequence). For the other half of the juries (Heterogeneous condition), each subject within a jury heard a different one of the six sequences. After hearing the trial, subjects individually rated the guiltiness of the defendant (0-20 point scale). They were then convened as a jury of six and given 10 minutes in which to discuss the case. They were told that they need only discuss the facts of the case, a consensus was not necessary.

Deliberations were tape-recorded. After deliberation, the subjects again individually rated the guiltiness of the defendant. The overall design of the experiment was thus a 2(Trials: guilt-appearing vs. innocent-appearing) X 2(Order: heterogeneous vs. homogeneous) X 2(Ratings: prediscussion vs. post-discussion), with the first two factors being between-subjects factors, and the last being a within-subjects factor.

Upon completion of the experiment, the subjects were questioned regarding any suspicions they might have, and were thanked for their participation.

Results

Guiltiness Ratings

Defendant guiltiness was rated on a twenty-point scale, higher ratings corresponding to greater attributions of guilt. Comparison of ratings before and after deliberation reveals two clear results. First, deliberation polarized prior judgments. Responses to the innocent-appearing trial went down, and to the guilt-appearing trial went up, as shown in the diverging curves in Figure 1. Divergence is supported by the significant Trial by Pre/Post interaction in Analysis of Variance ($F = 14.01$, $df = 1/140$, $p < .001$). Second, and germane to the major thesis of this paper, polarization was greater for juries which received evidence in heterogeneous order than for juries whose members heard evidence in the same order. (Note the greater divergence for curves respresenting the former juries.) This observation is supported by the Order X Trial X Pre/Post interaction ($F = 10.74$, $df = 1/140$, $p < .005$). To further explicate this interaction of order of presentation and polarization, separate analyses were conducted for homogeneous and heterogeneous conditions. Deliberation induced polarization in both conditions (F's = 20.06, 100.29 respectively, for $df = 1/70$), but to an apparently greater extent under heterogeneous presentation.

On a minor note, it comes as no surprise that the defendant in the guilt-appearing trial was judged more guiltily than in the innocent-appearing trial ($F = 79.55$, $df = 1/140$, $p < .001$).

Insert Figure 1 about here

Discussion Content Analysis

Recall that in the pilot data material presented in the last two of the six ordinal blocks showed greatest recall. It was reasoned that better recalled material would be more likely discussed, and therefore if later presented material were more heterogeneous across discussants, greater polarization should result.

A count was taken of evidential items (30 maximum for each trial) mentioned during deliberation. For each mention within jury, note was taken of the ordinal block in which the mentioned evidence appeared. So, it was possible to assess the number of mentions of facts from a given ordinal block, as well as the variety of different facts from any block brought up in discussion. Such assessment is meaningful, of course, only for the homogeneously constituted juries, since, for the heterogeneous juries, all six orders had been applied to each group.

Data for both measures, number and variety of citations, are in agreement with recall trends in the pilot study (see Table 2). Facts were discussed with greater frequency when they had appeared in the last two ordinal blocks for all discussants, compared to the first four blocks ($X^2 = 4.29$, $df = 1$, $p < .05$). Moreover, a Chi-Square analysis of the number of different facts discussed (ignoring repetitions) revealed that a greater variety of facts from the last two blocks were cited during deliberation ($X^2 = 4.15$, $df = 1$, $p < .05$).

Insert Table 2 about here

The content analysis adds meaning to the enhancing effect of heterogeneous presentation on polarization. Later presented information is both more likely to be recalled and discussed. Within juries with heterogeneous sequences, all information ultimately appears in the favored position, enabling a wider variety of information to be discussed. That these groups also show greater polarization suggests that factors which influence the redundancy of shared information also moderate the influence of discussion on judgment.

Discussion

The polarizing influence of discussion was enhanced by evidential presentation factors which broadened the distribution of recalled facts which could be shared during discussion. This accords with the view of group influence which attributes judgment shifts to information sharing. In connection with the effect of heterogeneity of order on polarization, we note that judgment shifts also occur when group members provide information that is completely unknown to other members (Anderson & Graesser, 1976), partially known to other discussants (Vinokur & Burnstein, 1974), or previously available to others but nonredundant with salient information which was utilized in the prediscussion judgment (Kaplan, Note 1). This study extends previous findings by suggesting a mechanism by which individuals may enter discussion with information that is only partially known to others, even when all heard the same material prior to discussion: differential memory may give each discussant a somewhat different set of facts to share. In retrospect, these findings show that judgment and group processes can be fruitfully explored by studying nonjudgmental variables such as memory.

In a jury trial, the order of presentation will never be systematically varied for each participant, as in this experiment, in order to produce different sets of memorable facts. But, it is reasonable to expect that unsystematic memory differences -- either constitutional or attentional in origin -- as well as differences in assigning salience to facts, can produce the same effect. Over the course of a long involved trial, given all the inherent distractions in the courtroom, all facts may not be equally memorable, nor will all jurors remember the same facts when they integrate them into predeliberation judgments. It remains for deliberation to reintroduce facts memorable to other jurors for subsequent intergration into the judgment. The more nonredundant the facts available from one juror to the next, the greater will be the potential for inducing changes in judgment. An interesting implication appears; jurors with better memories will have more information at their disposal for integration. Where information is nonneutral and univalent (as in the present study), such people will exhibit more extreme initial judgments, a set-size effect. In turn, by virture of possessing more information than others, they will exert greater influence on subsequent discussion.

The demonstration of the power of informational influence, and of the role of differential memory in producing varied and nonredundant shared information does not, of course, exclude the operation of conformity pressures in changing judgments. To cite an extreme example, personal threats and time pressures can lead individuals to shift their judgments. This study deliberately minimized the possibility of consensus pressures in order to study differential informational effects. Undoubtedly, informational and conformity influences occur jointly in "real life" jury deliberations. But, no study of group influences on judgment would be complete without an understanding of the group's role in the cognitive process of integrating information.

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Footnotes

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Reprints may be obtained from the first author, Department of Psychology, Northern Illinois University, De Kalb, Illinois 60115.

Table 1

Number of Facts Recalled from Within Each Ordinal Block

	Block					
	1st	2nd	3rd	4th	5th	6th
Number of Important Facts	74	72	82	88	105	106
Number of Other Facts	88	110	98	123	140	119
Total	162	182	180	211	245	225

Table 2

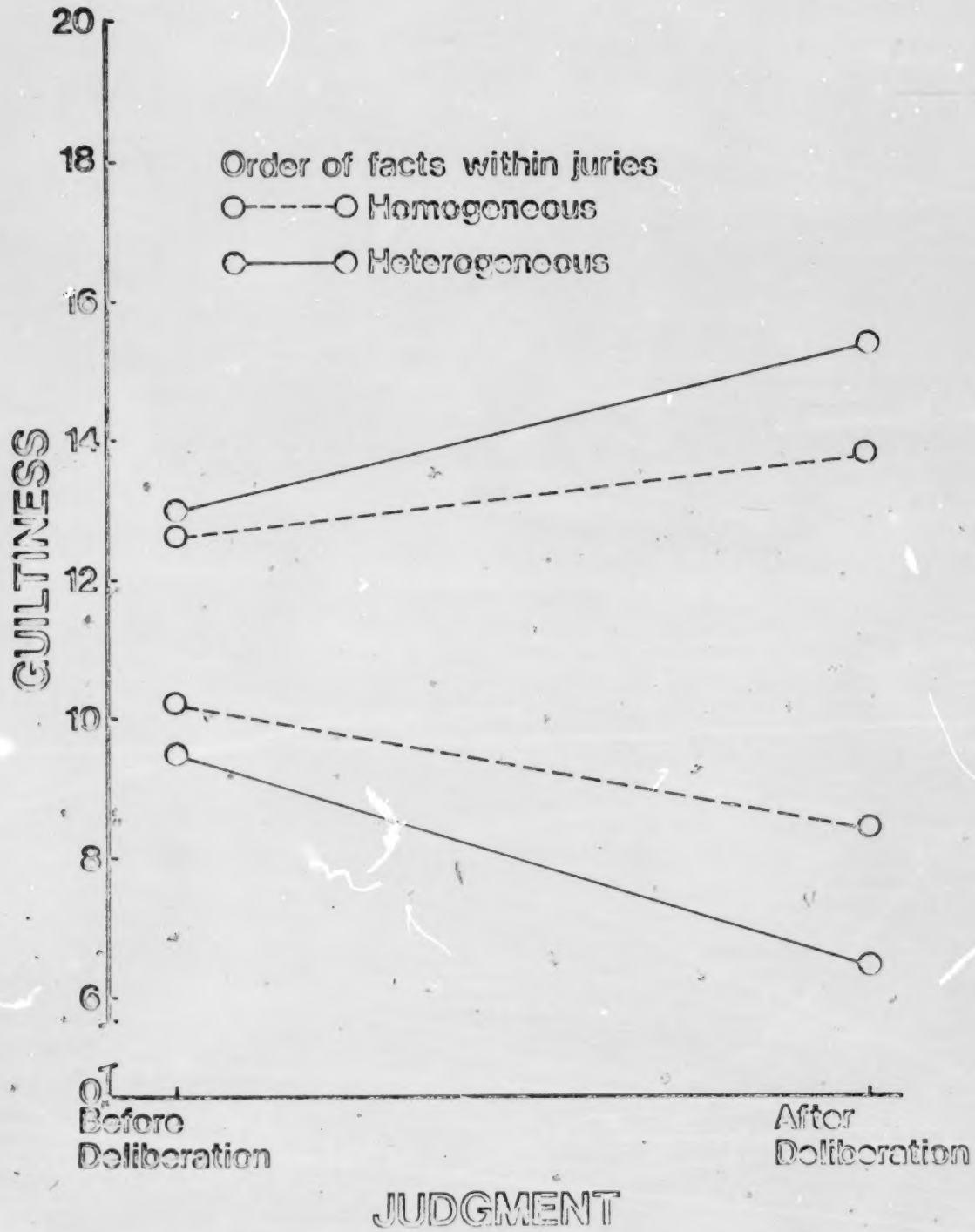
Number and Variety of Evidential Facts Discussed by Homogeneous-Order Juries Within Each Ordinal Block

	Block					
	1st	2nd	3rd	4th	5th	6th
Total Mentions of Facts						
Guilt-Appearing Trial	15	15	15	15	21	25
Innocent-Appearing Trial	28	31	34	32	36	36
[Total]	[43]	[46]	[49]	[47]	[57]	[61]
Number of Different Facts						
Guilt-Appearing Trial	10	9	11	9	15	15
Innocent-Appearing Trial	12	14	11	16	18	16
[Total]	[22]	[23]	[22]	[25]	[33]	[31]

Note: "Total mentions" refers to the number of times facts from a given block were shared during deliberation. "Number of different facts" refers to a count (maximum = 5) of the number of facts within a block receiving at least one mention. For each trial, data are summed across the six participating juries.

Figure Caption

1. Polarization of guiltiness judgments after deliberating facts presented in homogeneous or heterogeneous orders within juries.


20
18
16
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8
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0
GUILTINESS
Order of facts within juries
Homogeneous
Heterogeneous
Before Deliberation
After Deliberation
JUDGMENT